SECTION 13B: Cidex OPA - Benzenedicarboxaldehyde

I. PURPOSE. To establish a standard guide for effective use and management of Cidex-OPA®

II. APPLICABILITY. All DeWitt Army Community Hospital staff that work with Cidex-OPA®.

III. GENERAL INFORMATION.

A. Benzenedicarboxaldehyde (Cidex-OPA) is commonly used throughout the health care industry for high-level disinfection (HLD) of a wide variety of heat-sensitive equipment and medical devices. At DeWitt, Cidex-OPA is used for HLD of vaginal and rectal ultrasound probes used in Ultra Sound Radiology department and OB/GYN Well Women's clinics. In the DHCN, a 12-minute manual soak in Cidex OPA (benzenedicarboxaldehyde) is the minimum acceptable standard for processing these probes. A barrier latex condom is used in addition to HDL with Cidex OPA between each patient.

B. Health care workers can become exposed to elevated levels of Cidex-OPA vapors when equipment is processed in poorly ventilated rooms, when spills occur, or when immersion baths are constantly left open or uncovered. Industrial Hygiene will conduct quarterly ventilation monitoring of all areas where Cidex OPA is being used as required by Occupational Safety and Health Administration requirements.

IV. DEPARTMENT / SERVICE / CLINIC QUALITY ASSURANCE PROGRAM

A. All clinical activities will implement policies which will include:

1. Each user will maintain an effective quality assurance program with special emphasis on cleaning and disinfection.

2. Policies and procedures will adopt clearly written detailed cleaning and disinfection protocols. They should include structures and processes which:

a. Emphasize the manual soaking and cleaning as the first and most important step in removing organic and microbial bioburden.

b. Permit only those individuals who have demonstrated the ability to perform appropriate and proper cleaning and disinfection. Temporary personnel should not be allowed to manually clean or disinfect instruments without documented training.

c. Each clinical area using glutaraldehyde will develop and maintain a continuing education program devoted toward infection control which involves all staff members.

B. Engineering and work practice control shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of control

measures, personal protective equipment will be used. OSHA requirements for health care worker safety include the following precautions:

V. PROCEDURES.

A. The high level disinfection process requires adherence to specific steps to assure its efficacy. Personnel will follow manufactures recommendations when cleaning and disinfecting equipment. A Glutaraldehyde User Station (G.U.S.) is being utilized as a holding station for cleaning probes. It is maintained inside a laminar flow safety hood in the soiled utility room located in the OB/GYN Clinic. The hood is activated 24/7.

B. Personal Protection Equipment (PPE).

1. Gloves. Wear nitrile gloves when working with Cidex OPA.

2. Eyewear. Wear fluid shield masks and or protective eyewear when handling Cidex OPA to help protect your eyes from potential splashing. Eye washes are located within 100 feet of all activities. Use care to avoid splashing Cidex OPA when handling.

3. Gowns / Aprons. Wear a fluid-proof gown and or apron to protect clothing and skin from splashes when working with Cidex OPA or engaged in cleaning and disinfecting instruments.

C. Cidex Test Strips. To determine if an effective concentration of Cidex OPA is still present, Cidex OPA test strips will be used to determine the efficacy of the solution.

1. Verify expiration date on the test strip container, once opened the bottle will expire in 90 days. Label bottle accordingly.

2. Test the Cidex OPA solution in each container daily and record the results in the log book.

3. If the solution is found to be unacceptable, the Cidex OPA will be discarded IAW instructions found in the **Disposal** section below.

(a) Record the event in the log book. Notify Infection Control and initiate a recall of items processed since the last correct test strip reading.

D. Cleaning Process

1. As with other HLD procedures, proper cleaning of probes is necessary to ensure the success of the subsequent disinfection.

2. Remove used condom from the probe and discard. Place the probe on a clean chux and spray with Pro-EZ Foam. Thoroughly clean the probe with an enzymatic cleaner and rinse with water.

3. Dry the probe before placing into the Cidex OPA.

E. Disinfection Process

1. Place the probe carefully into the container.

2. Do not “bump” the tip of the probe on the bottom of the container.

3. Secure the probe with the clip on the G.U.S.

4. Allow to soak for 12 minutes.

5. Remove the probe and insert into the second container – water. Immerse and rinse. Remove and rinse again under running water.

6. Dry and replace in the designated storage area.

7. Remove PPE and wash hands.

F. Limiting Exposure to Cidex OPA Vapors. Cidex OPA vapors at a sufficient concentration may cause eye irritation and redness. Inhalation may cause irritation including but not limited to discharge, coughing, wheezing, tightness of chest and throat, difficulty breathing and stinging sensation in nose and throat. Symptoms are temporary and reversible. Maintaining ambient air below this level can be achieved by using the product within a ducted exhaust hood and using tight-fitting lids on the immersion baths. To prevent excessive exposure to vapors, take the following precautions:

1. In the DHCN, all Cidex OPA activity occurs under the hood in the OB/GYN Clinic.

2. Always replace the lids on the containers when not in use.

3. Be careful to avoid splashing or spills. Call the Safety Officer immediately for any large spills. MSDS Sheets will be available in all areas where glutaraldehyde is being used.

4. All areas will coordinate and establish on going monitoring of adopted threshold limit values of ambient air concentrations of glutaraldehyde in the work environment with the Industrial Hygiene Section.

G. Disposal.

1. This product is not hazardous waste as identified by EPA definitions.

2. Pour the liquid into the sanitary sewer.

3. In compliance with EPA regulations, empty containers of Cidex OPA may be discarded in the regular trash after thoroughly rinsing with water.

VI. REFERENCES.

a. 29 Code of Federal Regulations 1910, Occupational Safety and Health Standards.

b. American National Standard, ANSI/AAMI ST58-1996, Safe Use and Handling of Glutaraldehyde-based Products in Health Care Facilities.

c. American National Standard, ANSI Z358.1-1998, Eyewash Stations and Showers.

d. MEDDAC Regulation 385-1, Safety Program.

e. MEDDAC Regulation 385-2, Hazard Communication.

f. APIC Guideline for infection prevention and control in flexible endoscopy, April 2000.

g. MEDDAC Regulation 40-134, Management of Glutaraldehyde, February 2001.

h. APIC Infection Control and Applied Epidemiology Principles and Practices. Mosby, St. Louis, June 2002.

i. Rutala WA. APIC guideline for selection and use of disinfectants. *Am J Infect Control* 1996; 24:313–342.

j. Weber DJ, Rutala WA. Occupational risks associated with the use of selected disinfectants and sterilants. In: Rutala WA, ed. *Disinfection, Sterilization and Antisepsis in Health Care*. Champlain, NY:Polyscience Publications; 1998:211–226

k. American Conference of Governmental Industrial Hygienists. 1998 threshold limit values (TLVs) for chemical substances and physical agents and biological exposure indices (BEIs). Cincinnati OH; 1998.